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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.
08/919,670	08/28/97	AKIZUKI	H	SANYO-74

LM02/1025

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EXAMINER	
HARRINGTON, A	
ART UNIT	**PAPER NUMBER**
2712	3

DATE MAILED: 10/25/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
08/919670	Akizuki et al.
Examiner	**Group Art Unit**
HARRINGTON	2712

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication .
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

☒ Responsive to communication(s) filed on 8-28-97.

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 1-10 is/are pending in the application.

Of the above claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-10 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 11 9(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received: _____.

Attachment(s)

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☒ Notice of References Cited, PTO-892

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Interview Summary, PTO-413

☐ Notice of Informal Patent Application, PTO-152

☐ Other _____

Office Action Summary

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 U.S.C. § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

3. Claims 7 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Anderson et al (US 5,963,255) .

Anderson's system controls the camera such that when the detected voltage of the battery falls below the predetermined value (5.2 v), the camera shuts down power to some of the components in the system. For example: *In another mode when powering shutdown sequence has begun, the charging the flash is lessened (not the maximum charge amount) and camera image processing and other functions are allowed to be implemented, such as display.* Thus, Anderson's camera system is clearly teaching to powering down individual circuits which have a

great deal of influence on battery drain, such flash, processing and display to increase the longevity of the battery/power supply. Additionally, it is clear that Anderson also teaches efficient use of the energy available in the camera when power level output from the battery is not at a maximum or well above the threshold/predetermined value (minimum safe operating voltage; see col. 6, lines 1-25; col. 7, lines 23-45; col. 8, lines 1-51 and col. 10, lines 29-55).

As for claim 8, See Examiners notes in claim 1. Additionally, Anderson discloses the minimum safe operating level is 5.2 and a shut down sequence doesn't occur until the power level falls below the minimum. Thus, charging the capacitor and display could be performed when the power in the battery is at least the predetermined value (col. 5, lines 43-48; col. 7,23-32 and 40-46; col. 8, lines 14-17).

Claim Rejections - 35 U.S.C. § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1,2 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al (US 5,963,255).

Regarding claim 1, Anderson disclose an digital camera comprising a signal processor (16) for processing an image signal output from imaging element(col. 3, lines 53-60 and col. 4, lines 1-10 and see figure 1); a LCD display for displaying image data (see figure 4, #18); an electronic

flash device (#66, see figure 2) comprising a capacitor (col. 5, lines 10-28) and a discharge tube must receive the output ;battery for supplying current to all the circuitry of the camera (#17 and #74; see figure 1 and 3; col. 5, lines 29-42); a battery voltage detection circuit (#76; col. 5, lines 59-65; and the system controller (col. 2, lines 55-60; see figure 3 and 4; col. 5, lines 54-57). Although, the controller is a cooperation of two main components of the system (the computer and the power circuit), forming a single integrated unit would have been obvious to anyone of routine skill in the art.

However, Anderson's system controls the camera such that when the voltage of the battery falls below the predetermined value (5.2 v), the camera shuts down power to some of the components in the system. For example: The flash charging is completely shut down in power state 3, and the camera system may still take images and thus could still display images. In another mode, the charging the flash is lessened (not the maximum charge amount) and camera image processing and other functions are allowed to be implemented, such as display. Thus, Anderson's camera system is clearly teaching to powering down individual circuits which have a great deal of influence on battery drain, such flash, processing and display to increase the longevity of the battery/power supply. Additionally, it is clear that Anderson also teaches efficient use of the energy available in the camera when power level output from the batter is not at a maximum or well above the threshold/predetermined value (minimum safe operating voltage; see col. 6, lines 1-25; col. 7, lines 23-45; col. 8, lines 1-51 and col. 10, lines 29-55).

As for claim 2, See Examiners notes in claim 1. Additionally, Anderson discloses the minimum safe operating level is 5.2 and a shut down sequence doesn't occur until the power level falls below the minimum. Thus, charging the capacitor and display could be performed when the power in the battery is at least the predetermined value (col. 5, lines 43-48; col. 7, lines 23-32 and 40-46; col. 8, lines 14-17).

As for claim 3, Anderson fails to specifically disclose the predetermined value is half the value of the a full amount of electric charge stored in the battery. However, the Examiner asserts that Anderson discloses the claimed invention with the exception of this limitation and it appears the invention would work equally as well without specifying the threshold value is half of the battery maximum voltage level.

As for claim 4, see Examiners notes in claim 3 and 1.

As for claim 5, see Examiners notes in claim and col. 7, lines 1-5.

As for claim 6, Anderson's signal processor (16) contains a memory and digital signal processor . However, it is notoriously well known in the art that a camera system could incorporate two processors (digital and analog) to processor image signals as they are output form the imager initially and then digitally processor them late for digital transmission or use in external digital equipment connected to the camera. Therefore, it would have been obvious to one of ordinary skill in the art to include incorporate two processors in a camera system to expand the external use of the image signal(digital broadcast, conferencing; recreational image manipulation (photo software) by computers etc).

As for claim 9, see Examiners notes in claim 7 and 3.

As for claim 10, see Examiners notes in claim 9 and 7.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Miyake et al. (US 5,210,568) discloses a camera which prohibits a batter check during charging;

Hiroki (US 5,945,424) discloses a power switching arrangement for a video camera; and

Suzuki et al (Us 5,847,836) discloses turning off the display when printing.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Harrington whose telephone number is (703) 308-9295. The examiner can normally be reached on Monday to Friday from 9:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor, Wendy Garber, can be reached on (703) 305-4929.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308-5359 (for informal or draft communication, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist)

AMH:

October 21,1999

TUAN HO
PRIMARY EXAMINER